

In the claims:

1. (Currently amended) A method of producing a carbon nanotube tip, comprising the steps of:

providing a tip assembly;

applying a metallic catalytic colloidal material to the tip assembly;

inserting said tip assembly bearing said metallic catalytic material into a CVD reactor; and

exposing said tip assembly bearing said metallic catalytic material to a gaseous atmosphere comprising a carbon containing gas, thereby producing a tip assembly bearing a carbon nanotube tip; wherein said carbon nanotube tip comprises a SWNT.

2. (Original) The method of claim 1, wherein the tip assembly comprises silicon.

3. (Original) The method of claim 1 wherein the tip assembly is a multifaced probe.

4. (Original) The method of claim 3 wherein one or more faces of the tip assembly comprises a mask.

5. (Original) The method of claim 4 wherein the mask is removable.

6. (Original) The method of claim 3 wherein the multifaced tip assembly comprises silicon.

7. (Original) The method of claim 1, wherein carbon nanotube tips are produced on an array of tip assemblies.

8. (Canceled)

9. (Canceled)

10. (Currently amended) The method of claim 8 1 wherein the metallic catalytic colloidal material is selected from the group consisting of iron colloids, nickel colloids, cobalt colloids, platinum colloids, molybdenum colloids, and ruthenium colloids.

11. (Canceled)

12. (Canceled)

13. (Currently amended) The method of claim 10 wherein the metallic catalytic colloidal material is an iron colloid.

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Original) The method of claim 1, wherein the carbon containing gas is ethylene.

18. (Canceled)

19. (Original) The method of claim 1, wherein the carbon nanotube tip comprises a plurality of SWNTs.

20. (Canceled)

21. (Original) The method of claim 1, further comprising the step of shortening the carbon nanotube tip by electrical etching.

22. (Original) The method of claim 21, wherein electrical etching comprises applying voltage pulses of a predetermined voltage between the nanotube tip and a support surface.

23. (Original) A method of fabricating nanotube-based nanostructures by controlled deposition of nanotube segments comprising the steps of:

 biasing a tip assembly bearing a carbon nanotube tip at a starting location on a substrate at a predetermined voltage;

 scanning the tip assembly bearing a carbon nanotube tip along a predetermined path; and

 applying a voltage pulse at a higher voltage than the predetermined voltage thereby disconnecting the nanotube tip from tip assembly and depositing a nanotube segment on the substrate.

24. (Original) The method of claim 23, wherein the nanotube tip is a single wall nanotube.

25. (Cancelled)

26. (Currently Amended) The method of claim 25, A method of producing nano-
tweezers comprising at least two carbon nanotube tips, comprising the steps of:

providing a tip assembly;

applying at least two independent electrodes to the tip assembly; and

applying at least one carbon nanotube tip to each of the electrodes to produce a nanotweezer,
wherein the spacing between respective end portions of the carbon nanotube tips changes in
response to a voltage applied between the at least two electrodes; wherein applying the at
least one carbon nanotube tip comprises the steps of :

applying metallic catalytic material to at least one electrode; and

inserting said at least one electrode into a CVD reactor; and

exposing said at least one electrode to a gaseous atmosphere comprising a
carbon containing gas, thereby producing at least one electrode bearing a carbon
nanotube tip.

27. (Currently amended) The method of claim 25 26, wherein the carbon nanotube tip is
a single SWNT.

28. (Currently amended) The method of claim 25 26, wherein the carbon nanotube tip
comprises a plurality of SWNTs.

29. (Currently amended) The method of claim 25, 26 wherein the carbon nanotube tip is a
MWNT.
